ABSTRACT OF THE DISCLOSURE

In a convolutional decoder using partial traceback, L-1 data bits of a traceback beginning at a time step T are stored, where L is the traceback length; these L-1 data bits are the data bits corresponding to the L-1 time steps backwards from time step T. The maximum likelihood encoder state for time T is also saved. (The L-th data bit is the desired data bit as in conventional convolutional decoders.) In a subsequent partial traceback, preferably beginning at time T+1 that ends at time step T, the maximum likelihood encoder state for time T determined from the partial traceback is compared with the stored encoder state for time T. If they correspond to the same encoder state, , the L-1 stored data bits are designated as the last L-1 data bits of the current (partial) traceback.